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10/801,568	03/17/2004	Masaya Hashimoto	325772034800	3453

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Barry E. Bretschneider  
Morrison & Foerster LLP  
Suite 300  
1650 Tysons Boulevard  
McLean, VA 22102

EXAMINER
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MCLEAN, NEIL R

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2625

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/801,568	<b>Applicant(s)</b> HASHIMOTO ET AL.	
	<b>Examiner</b> Neil R. McLean	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-7 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-7 and 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 2-7, and 9-14 are pending in this application.

### ***Response to Arguments***

2. Applicant's arguments, see page 2, lines 7-9 filed 9/25/2008, with respect to the rejection(s) of claim(s) 2-7, and 9-14 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Inuzuka et al. (US 6,784,891).

Regarding Applicant's Argument:

Claim 5 recites " a controller which sets a size of the block of the data to be compressed by said compressor depending on an attribute of the data, wherein the data attribute is color or monochrome."..."Ishikawa does not actually disclose that any decision is made as to the size of the block to be compressed depending on whether the data is monochrome."

Examiner's Response:

Ishikawa discloses all of the limitations of Independent Claim 5, however Ishikawa does not disclose expressly:

a controller which sets a size of the block of the data to be compressed by said compressor depending on an attribute of the data, wherein the data attribute is color or monochrome.

Inuzuka discloses a controller (Display Control Device 200 in Figure 1A) which sets a size of the block of the data to be compressed by said compressor depending on an attribute of the data, wherein the data attribute is color or monochrome (the inside of block is represented by the two kinds (white and black) of analogous color signals, but it is not intended to limit the kind and the number thereof. Further, as the parameters of the compression processes, the block size, the kind of analogous colors within the block, the number of bits for the color signal and the like may be set-up; Column 10, lines 6-9) and (The parameters such as the block size, the number of analogous colors within the block and the like may be modified arbitrarily in the above-mentioned procedures. The compression rate may be set-up along with this set-up of the parameters; Column 10, lines 27-31)

Inuzuka & Ishikawa are combinable because they are from the same field of endeavor of image processing; e.g., both references disclose methods of image compression by dividing an image into blocks based on set up values inputted prior to compression. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to determine the size of a block of data to be compressed depending on whether the data is monochrome or color. The suggestion/motivation for doing so would be to reduce the problem of image deterioration when compressing and decompressing images. Color images use more memory than monochrome images and it would save memory and processing time by not processing every image as if they were all the same. Therefore, it would have been obvious to combine Inuzuka's method of compressing based on the color of an image with Ishikawa's method of dividing an

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image into blocks to obtain the invention as specified in order to enhance the image quality.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-6 and 9-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al. (US 5,838,833) hereafter 'Ishikawa', in view of Inuzuka et al. (US 6,784,891) hereafter 'Inuzuka'.

Regarding Claim 1: (Canceled)

Regarding Claim 2: (Currently Amended)

Ishikawa further discloses the data processing apparatus as recited in claim [[1]] 5, further comprising an attribute discriminator for discriminating the attribute of the data (Area Discriminating Circuit 24; e.g., Column 8, lines 45-49).

Regarding Claim 3: (Currently Amended)

Ishikawa further discloses the data processing apparatus as recited in claim [[ 1 ]] 5, wherein said controller sets the size of the block depending on the attribute of the data into a size of a page unit or a size of a divisional unit which is a size obtained by dividing the size of the page unit by plural numbers (e.g., Column 12, lines 9-11).

Regarding Claim 4: (Currently Amended)

Ishikawa further discloses the data processing apparatus as recited in claim [[1 ]] 5, wherein said memory stores the compressed data and a management table, and wherein said controller sets the size of the block based on a total capacity of the compressed data and a management table and a capacity of the memory (Column 7, lines 8-11).

Regarding Claim 5: (Currently Amended)

Ishikawa discloses the data processing apparatus (Figure 1), comprising:  
a compressor (Image Compression Device 1 in Figure 3; Column 8, lines 4-10) which  
compresses every block of inputted job data into compressed data (Image memory 21 stores, in one page units, the image data DG of original image GF input for image compression. The image data DG stored in image memory 21 are read out in block units by first block allocating circuit 22 and second block allocating circuit 23. That is, the image data DG of original image GF is read out by each domain block BD by the first block allocating circuit 22, and read out by each range block BR by the second block allocating circuit 23, as shown in FIG. 8 and described in Column 8, lines 13-19; See Block Allocating Circuit 22 and Second Block Allocating Circuit 23 in Figure 3);  
a memory which stores the compressed data (Image Memory 21 in Figure 3; Column 8, lines 11-12); and

a controller (Area discriminating circuit 24 discriminates the range blocks BR stored in range block memory 232 as shown in Figure 3 and described in Column 8, lines 45-49) which sets a size of the block of the data to be compressed by said compressor depending on an attribute of the data (e.g., Area discrimination is accomplished by determining whether or not an edge area (containing an edge) of the image is included in range block BR as described in Column 12, lines 9-11), wherein the data attribute is color or monochrome.

Ishikawa discloses all of the limitations of Independent Claim 5, however Ishikawa does not disclose expressly:

a controller which sets a size of the block of the data to be compressed by said compressor depending on an attribute of the data, wherein the data attribute is color or monochrome.

Inuzuka discloses a controller (Display Control Device 200 in Figure 1A) which sets a size of the block of the data to be compressed by said compressor depending on an attribute of the data, wherein the data attribute is color or monochrome (the inside of block is represented by the two kinds (white and black) of analogous color signals, but it is not intended to limit the kind and the number thereof. Further, as the parameters of the compression processes, the block size, the kind of analogous colors within the block, the number of bits for the color signal and the like may be set-up; Column 10, lines 6-9) and (The parameters such as the block size, the number of analogous colors within the block and the like may be modified arbitrarily in the above-mentioned procedures. The compression rate may be set-up along with this set-up of the parameters; Column 10, lines 27-31)

Inuzuka & Ishikawa are combinable because they are from the same field of endeavor of image processing; e.g., both references disclose methods of image compression by dividing an image into blocks based on set up values inputted prior to compression. At the time of the invention, it would have been obvious to a person of

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ordinary skill in the art to determine the size of a block of data to be compressed depending on whether the data is monochrome or color. The suggestion/motivation for doing so would be to reduce the problem of image deterioration when compressing and decompressing images. Therefore, it would have been obvious to combine Inuzuka's method of compressing based on the color of an image with Ishikawa's method of dividing an image into blocks to obtain the invention as specified in order to enhance the image quality.

Regarding Claim 6: (Currently Amended)

Ishikawa et al. discloses the data processing apparatus, comprising:

a compressor (Image Compression Device 1 in Figure 3; Column 8, lines 4-10); which compresses every block of inputted job data into compressed data (Image memory 21 stores, in one page units, the image data DG of original image GF input for image compression. The image data DG stored in image memory 21 are read out in block units by first block allocating circuit 22 and second block allocating circuit 23. That is, the image data DG of original image GF is read out by each domain block BD by the first block allocating circuit 22, and read out by each range block BR by the second block allocating circuit 23, as shown in FIG. 8 and described in Column 8, lines 13-19; See Block Allocating Circuit 22 and Second Block Allocating Circuit 23 in Figure 3);

a memory which stores the compressed data (Image Memory 21 in Figure 3; Column 8, lines 11-12); and

a controller (Area discriminating circuit 24 discriminates the range blocks BR stored in range block memory 232 as shown in Figure 3 and described in Column 8, lines 45-49) which sets a size of the block of the data to be compressed by said compressor depending on an attribute of the data (e.g., Area discrimination is accomplished by determining whether or not and edge area (containing an edge) of the



image is included in range block BR as described in Column 12, lines 9-11), wherein the attribute of the data is binary data or multi-valued data.

Regarding Claim 8: (Canceled)

Regarding Claim 9: (Currently Amended)

Ishikawa further discloses data processing method as recited in claim ~~[[8]]~~ 12, further comprising ~~a step of~~ performing attribute discrimination for discriminating the attribute of the data (Area Discriminating Circuit 24; e.g., Column 8, lines 45-49).

Regarding Claim 10: (Currently Amended)

Ishikawa further discloses data processing method as recited in claim ~~[[8]]~~ 12, wherein the size of the block is set depending on the attribute of the data into a size of a page unit or a size of a divisional unit which is a size obtained by dividing the size of the page unit by plural numbers (e.g., Column 12, lines 9-11).

Regarding Claim 11: (Currently Amended)

Ishikawa further discloses data processing method as recited in claim ~~[[8]]~~ 12, wherein the memory stores the compressed data and a management table, and the size of the block is set based on a total capacity of the compressed data and the management table and a capacity of the memory (Column 7, lines 8-11).

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Regarding Claim 12: (Currently Amended)

Ishikawa et al. discloses the data processing method, comprising:

setting a size of every block of data to be compressed by a compressor

depending of an attribute of the data (e.g., Area discrimination is accomplished by determining whether or not and edge area (containing an edge) of the image is included in range block BR as described in Column 12, lines 9-11);

compressing data of an inputted job into a set size of the block by the  
compressor; and

storing every block of compressed data into a memory, wherein the attribute of  
the data is color or monochrome (e.g., Area discrimination is accomplished by determining whether or not and edge area (containing an edge) of the image is included in range block BR as described in Column 12, lines 9-11);

Regarding Claim 13: (Currently Amended)

Ishikawa et al. discloses the data processing method, comprising:

setting a size of every block of data to be compressed by a compressor

depending of an attribute of the data (e.g., Area discrimination is accomplished by determining whether or not and edge area (containing an edge) of the image is included in range block BR as described in Column 12, lines 9-11)

compressing data of an inputted job into a set size of the block by the  
compressor (Image Compression Device 1 in Figure 3; Column 8, lines 4-10); and

storing every block of compressed data into a memory, wherein the attribute of  
the data is binary data or multi-valued data (e.g., Area discrimination is accomplished by determining

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whether or not and edge area (containing an edge) of the image is included in range block BR as described in

Column 12, lines 9-11);

7. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa in view of Inuzuka and further in view of Barnsley et al. (5,065,447).

Regarding Claim 7: (Currently Amended)

Ishikawa and Inuzuka discloses the data processing apparatus, comprising:

a compressor which compresses every block of inputted job data into compressed data (Image Compression Device 1 in Figure 3; Column 8, lines 4-10);

a memory which stores the compressed data (Image Memory 21 in Figure 3; Column 8, lines 11-12); and

a controller which sets a size of the block of the data to be compressed by said compressor depending on an attribute of the data, wherein the attribute of the data is a FAX/copy job or another job other than the FAX/copy job (e.g., Area discrimination is accomplished by determining whether or not and edge area (containing an edge) of the image is included in range block BR as described in Column 12, lines 9-11);

Ishikawa and Inuzuka discloses all of the limitations recited in Claims 1 and 8.

However, Ishikawa and Inuzuka do not disclose expressly wherein the attribute of the data is a FAX/copy job or another job other than the FAX/copy job.

Barnsley et al. discloses wherein the attribute of the data is a FAX/copy job or another job other than the FAX/copy job (Column 2, lines 51-58).

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Ishikawa and Inuzuka & Barnsley et al. are combinable because they are from the same field of endeavor of processing digital data, e.g., image compression. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the fax of Barnsley et al. in the image compression method of Ishikawa et al. The suggestion/motivation for doing so would be to increase processing speed, take less storage, and reduce transmission cost (Barnsley et al.; Column 1, lines 50-67). Therefore, it would have been obvious to combine the fax of Barnsley et al. with the image compression method of Ishikawa et al. to obtain the invention as specified in claims 7 and 14).

Regarding Claim 14: (Currently Amended)

Ishikawa et al. discloses the data processing method, comprising:  
setting a size of every block of data to be compressed by a compressor  
depending of an attribute of the data (e.g., Area discrimination is accomplished by determining whether or not and edge area (containing an edge) of the image is included in range block BR as described in Column 12, lines 9-11);

compressing data of an inputted job into a set size of the block by the  
compressor (Image Compression Device 1 in Figure 3; Column 8, lines 4-10); and  
storing every block of compressed data into a memory, wherein the attribute of  
the data is a FAX/copy [[hob]] job or another job other than the FAX/copy job.

Ishikawa et al. discloses all of the limitations recited in Claims 1 and 8.

However, Ishikawa et al. does not disclose expressly wherein the attribute of the data is a FAX/copy job or another job other than the FAX/copy job.

Barnsley et al. discloses wherein the attribute of the data is a FAX/copy job or another job other than the FAX/copy job (Column 2, lines 51-58).

Ishikawa et al. & Barnsley et al. are combinable because they are from the same field of endeavor of processing digital data, e.g., image compression. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the fax of Barnsley et al. in the image compression method of Ishikawa et al. The suggestion/motivation for doing so would be to increase processing speed, take less storage, and reduce transmission cost (Barnsley et al.; Column 1, lines 50-67). Therefore, it would have been obvious to combine the fax of Barnsley et al. with the image compression method of Ishikawa et al. to obtain the invention as specified in claims 7 and 14).

### ***Examiner Notes***

8. The Examiner cites particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully considers the references in its entirety as potentially teaching all or part of the claimed invention, as

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well as the context of the passage as taught by the prior art or as disclosed by the Examiner.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Suzuki et al. (US 7,130,072) discloses a multifunction multifunction system applicable to a copying apparatus or a printer, automatic switching of an image processing method and a compression/expansion method for each compressed packet image

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. McLean whose telephone number is (571)270-1679. The examiner can normally be reached on Monday through Friday 7:30AM-4:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571.272.7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Neil R. McLean/

Examiner, Art Unit 2625

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625